

Aga Khan Academy, Hyderabad

SCHEME OF WORK

(Scope and Sequence)

GRADE – 11 Chemistry (HL)

**ACADEMIC YEAR: 2012-2013**

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| **Teacher:** | Jaydip Chaudhuri | **Subject:** | Chemistry |

| **Cycle and date** | **Topic &**  **Sub topics** | **Learning Outcomes** | **Teaching activities / Integration of ICT components** | **Assessment Summative / formative** | **Differentiated activities /SEN** | **Course work / practical component** | **Resources** |
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| **Cycle:1**  1st- 8th August |  | | | | No differentiation is done as all the students are at the same level of intellect and metal ability. |  | |
| **Cycle:2**  9th- 17th August | Atomic structure | Understanding sub-atomic particles and electronic configuration | Teaching using worksheet on  Classroom pop quiz is conducted. | Regular assessment using classroom activity and worksheet | Understanding the D, DCP and CE and PS and MS. Rules of the practical lab | Worksheets  IB-data booklet  IB course companion  Laboratory equipment |
| **Cycle:3**  18th -28th August | Atomic Structure | Understanding the electron distribution and quantum numbers | Teaching using worksheet on electronic configuration. | Regular assessment using classroom activity and worksheet | **D**: determination of the chemical formula of copper chloride | Worksheets  IB-data booklet  IB course companion  Laboratory equipment |
| **Cycle:4**  29th -6th Sept | Atomic structure | Mass spectroscopy and identification of isotopes and RAM of an element | Classroom pop quiz is conducted on multiple choice questions | FAT -class test | **DCP**: determination of water of crystallization of copper(II) sulphate | Worksheets  IB-data booklet  IB course companion  Laboratory equipment |
| **Cycle:5**  7th-15th Sept | Quantitative Chemistry | Understanding mole concepts and Avogadro numbers | Teaching using worksheet on mole and mass volume relationship | Regular assessment using classroom activity and worksheet | **DCP and CE**: Acid carbonate titration | Worksheets  IB-data booklet  IB course companion  Laboratory equipment |
| **Cycle:6**  16th -25th Sept | Quantitative Chemistry | Mass volume, concentration relationship and numerical | Classroom pop quiz is conducted on empirical and molecular formula | FAT-1 completed | **DCP and CE**: determination of calcium carbonate in an egg-shell | Worksheets  IB-data booklet  IB course companion  Laboratory equipment |
| **Cycle:7**  26th -3rd October | Quantitative Chemistry | Understanding complex numerical for acid-base and dilution | Classroom pop quiz is conducted | Regular assessment using classroom activity and worksheet | **Lab Demonstration:** flame test of various cations  **D:** solubility of a salt | Worksheets  IB-data booklet  IB course companion  Laboratory equipment |
| **Cycle:8**  4th-12th October | Periodicity of elements | Physical properties of periodic elements | Worksheet given and quiz conducted on physical periodic properties | Regular assessment using classroom activity and worksheet | **CE:** Reactions of halides  **Simulation:** Acid-base reaction | Worksheets  IB-data booklet  IB course companion  Laboratory equipment |
| **Cycle:9**  13th-20th October | Periodicity of elements | Chemical properties of periodic elements and their variations | Worksheet given and quiz conducted on chemical periodic properties | Regular assessment using classroom activity and worksheet | **DCP**: determination of water of crystallization of copper(II) sulphate | Worksheets  IB-data booklet  IB course companion  Laboratory equipment |
| **Cycle:10**  21st -7th Nov | Bonding and shape of molecule | Intermolecular forces and types of bonding arising out of it | Worksheet given and quiz conducted on intermolecular forces | FAT class test will be conducted | **DCP**: Standardizing a solution of sodium hydroxide | Worksheets  IB-data booklet  IB course companion  Laboratory equipment |
| **Cycle: 11**  8th-16th Nov | Bonding and shape of molecule | Intra-molecular forces and its effect on physical/ chemical properties of compound | Classroom pop quiz is conducted on intra-molecular forces | Regular assessment using classroom activity and worksheet | **MS:** Reactions of various cations and anions | Worksheets  IB-data booklet  IB course companion  Laboratory equipment |
| Cycle:12  17th -8th Dec | Revision | Shapes of molecular orbitals, VSEPR | IB questions solved and quiz conducted on shape | FAT-2 completed | **CE**: melting and freezing point of hypo | Worksheets  IB-data booklet  IB course companion  Laboratory equipment |
| oCycle: 13  9th- 15th Dec | Exam week | | | | Exam week | |